

PROVOLOVICH, A.A., inzhener.

Mechanical tightening of nuts on high-pressure apparatus. Sber'st.
NIIKHIMMASH no.19:41-46 '56. (MLRA 10:3)
(Bolts and nuts) (Wrenches)

PROVOLOVICH, A.I.

Using mechanical protective devices in tree plantation work
in the moving sands along the Ashkhabad railroad. Trudy TSNII MPS
no.129:97-115 '57. (MLRA 10:5)
(Ashkhabad Province--Railroads)
(Tree planting)

PROVOLOVICH, A.I.

"Increasing the Acclimatization of Psammophyte Crops on the
Mobile Sands of the Ashkhabad Railroad";

dissertation for the degree of Candidate of Agricultural Sciences
(awarded by the Timiryazev Agricultural Academy, 1962)

(Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii, Moscow, No. 2,
1963, pp 232-236)

PROVOLOVICH, A.I.

~~New method of~~ planting cuttings and seedlings in moving sands.

Trudy TSNII MPS no.129:116-123 '57.

(MLRA 10:5)

(Tree planting)

PROVOLOVICH, A.I.

Increasing the adaptability of psammophytic cuttings and seedling.
Trudy TSNII MPS no.129:124-149 '57. (MLRA 10:5)
.Ashkhabad Province--Tree planting)

PROVGLOVICH, A.I., nauchnyy sotrudnik

Use of irrigation in the growing of protective tree belts. Put'
i put.khoz. 9 no.5:36-37 '65.

(MIRA 18:5)

1. Laboratoriya zashchitnykh lesonasazhdeniy Vsesoyuznogo
nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta
Ministerstva putey soobshcheniya.

PROVOLOVICH, A.I.

Methods of tree planting for shelterbelts on large barkhans along
the Ashkhabad Railroad. Trudy TSNII MPS no.204:75-93 '60.
(MIRA 14:4)

(Ashkhabad--Windbreaks, shelterbelts, etc.)

RUSSIAN MEDICAL Sec 2 Vol 11/7 Physiology July 58

3385. PHYSIOLOGICAL ACTION OF SUBSTANCES RELATED TO VIT. A (ANTI-ACETYLCHOLINE ACTIVITY OF β -IONONE) (Russian text) - Balakhovsky S. D. and Provolovich E. E. - DOKLADY AKADEM. NAUK SSSR 1957, 113/3 (643-645) Graphs 2

β -Ionone depressed ACh contractions of isolated guinea-pig ileum and frog rectus abdominis in a degree almost linearly related to its concentration. At a concentration of 5.4×10^{-6} it depressed the contractions to about 35% of their initial value, while at a concentration of 13.5×10^{-6} it depressed them to about 62% of the initial value. The anti-inflammatory and analgetic effects of β -ionone may be due to its anticholinergic action.

Kokot - Bytom

Country : USSR
 Category : Human and Animal Physiology, General Problems.
 Abs. Jour : Med Star-Biol., No 23, 1960, 106060
 Author : A. I. Zhuravskiy, S. G.; Prokhorovich, Ye. Ia.
 Institution : AN USSR
 Title : Antihistaminic Activity of Vitamin A and Beta-Ionone
 Orig. Publ. : Dokl. AN SSSR, 116, No 2, 1965-1966
 Abstract : Experiments, conducted on sections of the intestines of guinea pigs have demonstrated that the decay product Vitamin A — Beta-ionone, which possesses antidiarrhoeal and antidiabetic properties, also display antihistaminic activity. The antihistaminic activity of vitamin A acetate is weaker.

Cards: 1/1

BALAKHOVSKIY, S.D.; PROVOLOVICH, Ye.Ye.

On the physiological action of substances related to vitamin A
(antiacetylcholine activity of β -ionone). Dokl. AN SSSR 113
no.3:643-645 Mr '57. (MIRA 10:6)

1. Institut biokhimii im. A.N. Bakha Akademii nauk SSSR. Pred-
stavleno akademikom A.I. Oparinym.
(Retinene) (Vitamin--A)

PROVOLOVICH, Ye. Ye.

20-2-28/50

AUTHORS: Balakhovskiy, S. D. , and Provolovich, Ye. Ye.

TITLE: Anti-Histamine Activity of Vitamin A and of β -Ionone (Ob antigistaminnoy aktivnosti vitamina A i β -ionona)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 263 - 265 (USSR)

ABSTRACT: It has already been proved that substances which are related to vitamin A (retinol) possess a distinctly marked antiedematous activity. In a model test they counteract acetylcholine, histamine and in some cases also adrenalin. In the present paper the authors want precisely to define the interrelations between histamine, vitamin A and a fragment of the molecule of the latter - the β -ionone. The measurements show that vitamin A possesses an essentially higher activity in the suppression of spasms of a smooth muscle than might be concluded on the basis of earlier tests. β -ionone and vitamin A were used as nonalcoholic, water-colloidal solutions; the control of the concentration was carried out spectrophotometrically. A portion of intestine from a guinea pig was used as test object. Its contraction was caused by histamine-dichlorohydrate (concentration $1 \cdot 10^{-8}$ to $2 \cdot 10^{-8}$). The portion of intestine was for 15 minutes incubated in a solution of the appropriate antagonist and

Card 1/3

20-2-28/50

Anti-Histamine Activity of Vitamin A and of β -Ionone

then, without washing, histamine was added in a quantity which made it possible to attain the values mentioned above. The comparison of the contraction with and without antagonists made it possible to form a conception of the activity of the substance concerned. Figure 1 shows that β -ionone in a concentration of $6 \cdot 10^{-6}$ to $6 \cdot 10^{-7}$ by about 50 - 70 % reduces the degree of contraction of the portion of intestine which develops by the action of histamine-dichlorohydrate ($1 \cdot 10^{-8}$ to $2 \cdot 10^{-8}$). Figure 2 shows the anti-histamine activity of vitamin A. It has a somewhat smaller anti-histamine activity than β -ionone. In order to obtain the same effect, higher concentrations ($1 \cdot 10^{-5}$ to $5 \cdot 10^{-6}$) must be used. From this follows that vitamin-A-acetate is somewhat less active than vitamin-A-aldehyde (retinene). The easy oxidizability of vitamin A must be taken into account. From the above-mentioned facts and from publications follows that β -ionone - a decomposition product of vitamin A - possesses an antimediatory activity toward mediators: acetylcholine, histamine and adrenaline. Vitamin-A-acetate has a similar but weaker activity. There are 2 figures and 6 references, 5 of which are Slavic.

Card 2/3

20-2-28/50

Anti-Histamine Activity of Vitamin A and of B-Ionone

ASSOCIATION: Institute for Biochemistry AN USSR imeni A. N. Bakh
(Institut biokhimii im. A. N. Bakha, Akademii nauk SSSR)

PRESENTED: May 16, 1957, by A. I. Oparin, Academician

SUBMITTED: May 11, 1957

AVAILABLE: Library of Congress

Card 3/3

PROVOLOVICH, Ye. Ye.
BALAKHOVSKIY, S.D.; PROVOLOVICH, Ye. Ye.

Antihistaminic activity of vitamin A and β -ionone. Dokl. AN
SSSR 116 no.2:263-265 S '57. (MIRA 11:2)

1. Institut biokhimii im. A.N. Bakha AN SSSR. Predstavleno akademi-
kom A.I. Oparinym. (VITAMINS--A) (IONONE)

DROZDOVA, N.N.; PROVOLOVICH, Ye.Ye.; RYVKINA, D.Ye.; BALAKHOVSKIY, S.D.

Antimediatoric activity of oxidized and unoxidized carotene.
Dokl. AN SSSR 112 no.2:294-296 Ja '57. (MLRA 10:4)

1. Predstavleno akademikom A. I. Oparinym.
(Carotene)

AUTHOR
TITLE

BALAKHOVSKIY, S.D., PROVOLOV, H. Ya. Ya.
On the Physiological Action of Substances Related to Vitamin A.
(Antiacetylcholine activity of B-ionone).

PA - 3167

(K voprossu o mekhanizme fiziologicheskogo deystviya veshchestv, blizhikh k vitaminu A (antiatsetilkholinovaya aktivnost' B-ionona - Russian)

PERIODICAL

Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 3, pp 643-645,
(U.S.S.R.)

Reviewed 7/1957

Received 6/1957

ABSTRACT

Experiments are described on the basis of which it is possible to speak about the existence of an antiacetylcholin-activity in the case of B-ionones. In a series the shortening of the intestinal section of a porcupine caused by the acetylcholine and the degree of the curbing this shortening under the influence of incubation with a Bionone solution was investigated. In the course of a second series of experiments the antiacetylcholine activity of the B-ionone was evaluated according to its ability of curbing the shortening of the straight abdominal muscle of a frog caused by acetylcholine. The experiments showed that an increase of the concentration of the B-ionone leads to a decrease of the shortening of the muscle i.e. there is a relation between a curbing effect of the B-ionone and its concentration. There is, however, no direct proportionality. It was found that in the case of experiments carried out on the smooth muscle of a warm-blooded animal the B-ionone is much

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68262

5.2620

SOV/81-59-10-33952

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, pp 19-20 (USSR)

AUTHORS: Shamsiyev, A.Sh., Dubinets, P.G. (Communication III); Shamsiyev, A.Sh., Provorchenko, L.I. (Communication IV)

TITLE: The Investigation of the Refraction of Some Inorganic Complex Compounds of Platinum, Cobalt and Chromium: Communication III. The Refractometric Effect of the Hydroxy-Reaction. Communication IV. The Refractometric Stability Characteristic of Aqueous Solutions of Complex Trivalent Cobalt Compounds

PERIODICAL: Tr. Sredneaz. un-ta, 1958, Nr 84, pp 51-56, 57-62

ABSTRACT: III. For explaining the relative stability of complex ions $[\text{Co}(\text{NH}_3)_5\text{OH}]^{2+}$ (I) and $[\text{Co}(\text{NH}_3)_5\text{H}_2\text{O}]^{3+}$ (II) the refraction indices of an aqueous solution of the salts $[\text{Co}(\text{NH}_3)_5\text{H}_2\text{O}]\text{Cl}_3$ (III) and $[\text{Co}(\text{NH}_3)_5\text{OH}]\text{Cl}_2$ (IV) were measured at 20°C and the values of the molecular refractions R were calculated. For III R = 55.09, for IV R = 47.92. R of the ions I and II have been calculated by subtracting R of the Cl atoms from the obtained values. For II R = 27.88, for I R = 29.78. From this fact a higher stability of the ion of I is concluded. The calculation of R for $[\text{Co}(\text{NH}_3)_5\text{Cl}]^{2+}$ produced the value 28.61,

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30V/81-59-10-33952

The Investigation of the Refraction of Some Inorganic Complex Compounds of Platinum, Cobalt and Chromium. Communication III. The Refractometric Effect of the Hydroxy-Reaction. Communication IV. The Refractometric Stability Characteristic of Aqueous Solutions of Complex Trivalent Cobalt Compounds

which shows the stability of the latter ion being similar to the stability of the ion of I. IV. The refraction indices have been measured and the values of the molecular refractions R of the following compounds have been calculated by Lorentz-Lorenz' formula (in parentheses the values of R are cited): $[\text{Co}(\text{NH}_3)_6]\text{Cl}_3$ (77.51), $[\text{Co}(\text{NH}_3)_5\text{NO}_2]\text{Cl}_2$ (82.15), $[\text{Co}(\text{NH}_3)_4(\text{NO}_2)_2]\text{Cl}$ (86.67), $[\text{Co}(\text{NH}_3)(\text{NO}_2)_3]$ (79.33), $[\text{Co}(\text{NH}_3)_2(\text{NO}_2)_4]$ (97.59), $[\text{Co}(\text{NO}_2)_6]\text{Na}_3$ (103.31). Based on these values the R's of the corresponding complex ions have been calculated by subtracting the sum of the atomic refractions of the atoms of the outer sphere. R of the ions and consequently also their stability increases with an increase in the number of NO_2 groups in the inner sphere. Communication II see Tr. Sredneaz. un-ta, 1952, Nr 33.

E. Byutner

Card 2/2

SHAMSIYEV, A.Sh. [deceased]; PROVORCHENKO, L.I.

Investigation of the refraction of some inorganic complex compounds.
Report No.4: Refractometric characteristics of the stability of aqueous
solutions of trivalent cobalt complex compounds. Trudy SAGU no.134:
57-62 '58. (MIRA 12:4)

(Cobalt compounds)

PROVORKIN, A.S., inzh.

Accuracy of determining the degree of decomposition of peat
in the evaluation of the quality of peat deposits. Torf. prom.
35 no.6:26-28 '58. (MIRA 11:10)

1. Glavtorffond RSFSR.
(Peat)

PROVORKIN, A. S.

Works of the Central Peat Experimental Station, (Min of Agri, RSFSR)

Volume 6, 1939, 319 pages, "Methods of Study of Peat Bogs (Part 2)

"Technical Specifications for Detailed Survey of Peat Bogs with an Area of from 10 to 100 Hectares". Compiled by A. S. Provorkin, and B. G. Vasil'yev, P. E. Loginov, M. I. Neyshtadt, Ya. A.

Sirotkin, M. I. Pavolv.

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,
Jan-Feb 1950, Russian bim per, Moscow/Leningrad (U-5511
12 Feb 1954)

ANTONOV, V.Ya., kand.tekhn.nauk; BEZZUBOV, N.D., kand.tekhn.nauk; BELOKO-
 PYTOV, I.Ye., kand.sel'skokhoz.nauk; BLYUMENBERG, V.V., kand.tekhn.
 nauk; BOGDANOV, N.N., kand.tekhn.nauk; BRAGIN, N.A., inzh.; VASIL'YEV,
 Yu.K., inzh.; VINOGRADOV, V.A., inzh.; ROZENBERG, B.I., inzh.; GOR-
 GIDZHANYAN, S.A., kand.tekhn.nauk; ZIZA, A.A., kand.sel'skokhoz.nauk;
 KALABUKHOV, M.V., agronom-meliorator; KOLOTUSHKIN, V.I., inzh.; KORCHU-
 NOV, S.S., kand.tekhn.nauk; KRYUKOV, M.N., dotsent; VAVULO, V.A., inzh.;
 NAUMOV, D.K., kand.tekhn.nauk; OLENIN, A.S., inzh.; PROVORKIN, A.S.,
 inzh.; PROKHOROV, N.I., dotsent; RASKIN, G.I., inzh.; SAVENKO, I.V.,
 inzh.; SERGEYEV, B.F., kand.tekhn.nauk; STOYLIK, M.A., inzh.; SUKHA-
 NOV, M.A., inzh.; TOPOL'NITSKIY, N.M., kand.tekhn.nauk; TYUREMOV, S.N.,
 doktor biol.nauk, prof.; FATCHIKHINA, O.Ye., kand.sel'skokhoz.nauk;
 TVETKOV, B.I., inzh.; CHUBAROV, N.D., inzh.; MANDEL'BAUM, A.I., inzh.;
 (Continued on next card)

ANTONOV, V.Ya.---(continued) Card 2.

YARTSEV, A.K.; SAMSONOV, N.N., inzh., glavnyy red.; BERSHADSKIY, L.S., inzh., nauchnyy red.; VARENTSOV, V.S., kand.tekhn.nauk, nauchnyy red.; VYSOTSKIY, K.P., kand.tekhn.nauk, nauchnyy red.; GORINSHTEYN, L.L., kand.tekhn.nauk, nauchnyy red.; GORYACHKIN, V.G., prof., nauchnyy red.; YEFIMOV, P.N., kand.tekhn.nauk, nauchnyy red.; KUZMAN, G.I., kand.tekhn.nauk, nauchnyy red.; KULAKOV, N.N., kand.tekhn.nauk, nauchnyy red.; KUTAIS, L.I., prof., doktor tekhn.nauk, nauchnyy red.; MIRKIN, M.A., inzh., nauchnyy red.; SEMENSKIY, Ya.P., kand.tekhn.nauk, nauchnyy red.; SOKOLOV, A.A., kand.tekhn.nauk, nauchnyy red.; KHAZANOV, Ya.N., dotsent, nauchnyy red.; KHALUGO, A.K., inzh., nauchnyy red.; TSUPROV, S.A., dotsent, nauchnyy red.; SHTEYNBOK, G.D., inzh., nauchnyy red.; KOLOTUSHKIN, V.I., red.; SKVORTSOV, I.M., tekhn.red.

[Reference book on peat] Spravochnik po torfu. Moskva, Gos.energ. izd-vo, 1954. 728 p. (MIRA 13:7)

1. Chlen-korrespondent AN BSSR (for Goryachkin).
(Peat---Handbooks, manuals, etc.)

PROVORKIN, A.S., inzh.

Utilization of peat in the Georgian S.S.R. Zbor.st.po izuch.
torf.fonda no.2:221-234 '57. (MIRA 11:8)

1.Glavtorffond RSFSR.
(Georgia--Peat)

PROVORKIN, A. S.

Works of the Central Peat Experimental Station, (Min of Agri, RSFSR)

Volume 6, 1939, 319 pages. "Methods of Study of Peat Bogs (Part 2)

"Technical Specifications for Detailed Survey of Peat Deposits with an Area over 100 Hectares", (Compiled by B. G. Vasil'yev, Pl. D. Varlygin, N. V. Vlastova, B. K. Dunavey, A. S. Provorkin, M. I. Neyshfalt, L. L. IL'inskiy, L. Ya. Lenin, M. I. Pavlov and A. N. Chel'tsov).

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,
Jan-Feb 1950, Russian bimonthly, Moscow/Leningrad (U-5511,
12 Feb 1954)

BEAKHEAN, L.A.; KISELEV, Ye.N.; RUSYY, V.D.; TRITNITSKIY, S.I.;
REKSHINSKAYA, T.P.; BOL'SHAKOV, V.M.; PROVOROV, V.V.

Using compact-grained hard alloys in the automobile industry.
Avt. prom. 31 no.2:38-41 F '65.

(MIRA 18:3)

1. Nauchno-issledovatel'skiy institut tekhnologii avtomobil'noy
promyshlennosti, Minskiy avtozavod, Bryanskiy avtozavod, Moskov-
skiy zavod malolitrazhnykh avtomobiley, Gor'kovskiy avtozavod i
Yaroslavskiy motornyy zavod.

NEVEROVA-SKOBELVA, N.P.; PROVORNAYA, A.Ye.; SLAVINA, I.I.; SHEYNIN, B.Ye.

Increasing the impact toughness of OT4 and OT4-1 alloys by
heat treatment. Metalloved. i term. obr. met. no.2:45-49 F
'63. (MIRA 16:3)

(Titanium alloys, Heat treatment)

PROVORNOV, S. M., (Institute of Cinematography, Leningrad)

GREBENNIKOV O. F. and GUSEV, V. P.
Universal Raster Camera with Continuous Sweep for High-Speed Photography.

report submitted for: The 5th International High Speed Photography Congress,
Washington, D.C. 16-22 Oct., 1960.

BARANENKO, Simon Rafailovich; PROKOROV, Sergey Mikhaylovich;
SILINIK, Aron Vladimirovich; SHERETSKAYA, N.N., red.:

[Apparatus for motion-picture projection and sound re-
producing] Kinoproektsionnaya i zvukovosproizvoditschaya
apparatura. Moskva, Iskusstvo, 1964. 367 p. (MIRA 17:9)

[illegible]

24099 PROYOROV, S. Geometricheskiye kharakteristiki svetovoi'ogo radiatsionnogo razlaza. Trudy Leningr. RI-TA khimicheskoy, fiz. 2, 1946, 3, 24-26.

SC: Labovitz, No. 32, 1949.

2-37 ВАСИЛЬЕВ, С. П. Исследование износа типографских деталей кинематографической аппаратуры. Труды Ленингр. ИИ-ТА кинематографов, вып. 2, 19-8, с. 78-89.

50: Изотопы, №. 32, 1949.

SEMYREV, V.I.; PROVORNOV, S.M., kandidat tekhnicheskikh nauk, redakter.

[Moving-picture films and projection apparatus] Kinefil'm i kine-
proektsionnaya apparatura. Pod obshchey red. S.M. Provernova.
Moskva, Iskusstvo, 1953. 402 p. (MLRA 7:7)
(Moving picture projection)

PROVORNOV, Sergey Mikhaylovich; PLETNIKOV, K.V., redaktor; EYSYMONT, L.O.,
redaktor; VALYNTSEVA, V.A., tekhnicheskii redaktor

[Motion-picture projection apparatus] Kinoproektsionnaia apparatura.
Pod obshchei red. K.V.Pletnikova. Moskva, Gos. izd-vo "Iskusstvo,"
1954. 366 p. (MLRA 7:9)
(Motion-picture projectors)

PROVORNOV, S.M.; TSIVKIN, M.V.

Experimental investigation of the effect of light dispersed by a stereoscopic screen on the separation and contrast of the images resulting from double projection. Trudy LIKI no.3:93-101 '55.
(MLRA 9:8)

1. Kafedra kinoapparatury i optiki.
(Motion pictures, Three-dimensional)

SHMYREV, Viktor Ivanovich; PROVORNOVA, S.M., kandidat tekhnicheskikh nauk, redaktor; EYSYMONT, L.O., redaktor; VORONTSOVA, Z.V., tekhnicheskiiy redaktor

[Motion-picture film and motion-picture projection apparatus]
Kinofil'm i kinoproektsionnaya apparatura. Pod red. S.M.Provornova.
Izd. 2-oe, 1 dop. Moskva, Gos. izd-vo "Iskusstvo," 1956. 423 p.
(Motion-picture projectors) (MLRA 10:2)

IZNAIRSKIY, N.A.; PROVORNOV, S.M.; KOBZAR', V.V.

Study of the tension of motion-picture film using the polarization optical method. Trudy LIKI no.4:86-91 '56. (MLRA 10:5)

1.Kafedra teoreticheskoy i tekhnicheskoy mekhaniki i kafedra kinoapparatury.

(Cinematography--Films)

TSIVKIN, M.V.; PROVORNOV, S.M.

One-film polarized systems of stereoscopic cinematography.

Zhur.nauch.i prikl.fot.i kin. 2 no.2:130-135 Mr-Apr '57.

(MLRA 10:5)

Leningradskiy institut kinoinzhenerov.

(Motion pictures, Three-dimensional)

PROVOROV, S. M. and GREBENNIKOV, O. P.
Cinematography Inst.

"Beitrage zum Rasterverfahren," (Scanning Cameras for Ultra-High-Speed Photography
at 100 million Frames per second.)

paper presented at 4th Intl. Congress on High Speed Photography, Cologne,
22-27 Sep 58.

■
Leningrad Inst. of Cone-Engineers

BARBANEL', Simon Rafailovich; BARBANEL', Solomon Rafailovich; KOROLEV, Nikolay Mikhaylovich; SOLOMONIK, Aron Vul'fovich; TSIVKIN, Mikhail Vul'fovich; PROVORNOY, S.M., kand.tekhn.nauk. red.; EYSYMONT, L.O., red.; MALEK, Z.N., tekhn.red.

[Motion-picture projection] Kinoproektsionnaya tekhnika. Pod obshchei red. S.M.Provornova. Moskva, Gos.izd-vo "Iskusstvo."
1958. 517 p. (MIRA 12:3)

(Motion-picture projection)

MELIK-STEPANYAN, Aram Matveyevich; PROVORNOV, Sergey Mikhaylovich;
EYSIMONT, L.O., red.; MALEK, Z.N., tekhn.red.

[Parts and mechanisms of motion-picture equipment] Detali i
mekhanizmy konoapparatury. Moskva, Gos.izd-vo "Iskusstvo,"
1959. 431 p. (MIRA 13:2)
(Motion-picture projection--Equipment and supplies)

PROVORNOV, S.M., prof.; GORESHNIKOV, G.V.; Izv. vuzov. tekhn. nauk, dotsent;
GUSEV, V.I.

Grid-frame RSE-2 camera with a frequency of up to 500 million
pictures per second. Ussr. nauch. fot. 9:27-28 '64.
(MIRA 18:11)

PROVORNOV, S.M., GREBENNIKOV, O.F.

"High-speed motion-picture photography with the SKS-1 camera"
by V.I. Lavrent'yev, V.G. Fell'. Reviewed by S.M. Provornov,
O.F. Grebennikov. Zhur. nauch. i prikl. fot. i kin. 9 no.3:
237-238 My-Je '64. (MIRA 18 11)

ACC NR: AP7010699

SOURCE CODE: UR/0077/67/012/001/0045/0053

AUTHOR: Gusev, V. P.; Grebennikov, O. F.; Provornov, S. M.; Shablevich, B. I.; Medvedev, A. G.

ORG: Leningrad Institute of Motion Picture Engineers (Leningradskiy institut kinoinzhenerov); Krasnogorsk Mechanical Works (Krasnogovskiy mekhanicheskiy zavod)

TITLE: High-speed raster-type motion picture camera RKS-2M

SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii v. 12, no. 1, 1967, 45-53

TOPIC TAGS: motion picture camera, high speed camera / RKS-2M high speed motion picture camera

SUB CODE: 14

ABSTRACT: As reported earlier by Provornov and Grebennikov (Tekhn. kino i televideniya, 1957, No 2; 1959, No 2), the Leningrad institute LIKI has been working for years on the development of the raster-type motion picture camera. In 1957 several laboratory models of cameras with a speed of 100 million frames per second were produced; in 1960 a triggered camera with a speed range of 1,000 to 150,000 frames per second, and in 1963 a raster type motion picture camera with a speed of up to 500 million frames per second

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UDC: 778.534.83

ACC NR: AP7010699

were produced. Although two later models have gone into production at the Krasnogorsk Mechanical Works, this article gives the general principles of operation and the technical characteristics for the 1963 camera, the RKS-2M. The optical raster was produced at NIKFI (Scientific-Research Motion Picture Institute) and consists of a glass plate on which a number of spherical lenses are arranged so that each will produce in a single plane a circular image of the photographed object about 5-10 microns in diameter. The RKS-2M is described as a completely reliable camera. The illustrations include diagrams of the main optical system, the drive system and block diagram of the control panel, and photographs of the complete set, including auxiliaries, of the camera itself (1,500 mm long, 400 mm wide, 600 mm high, 100 kilograms) and six frames showing the various phases of discharge of the ISSh-500 pulsed tube obtained with the RKS-2M at a speed of 260 million frames per second, using 16-mm "Mikro" film. Orig. art. has: 7 figures.

[JPRS: 40,300]

Card 2/2

L 42052-66 FSS-2/EMT(1)/T L.M.(c) JGS
 ACC NR: AT6001381 SOURCE CODE: UR/3180/64/009/000/0005/0011

AUTHOR: Provornov, S. M. (Professor); Grebennikov, O. F. (Candidate of technical sciences; Docent)

ORG: none

TITLE: Basic characteristics of high-speed motion picture cameras

SOURCE: Akademiya nauk SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1964, 5-11

TOPIC TAGS: high speed camera, motion picture camera

ABSTRACT: The authors define those characteristics of high-speed cameras which determine the limits of their application (principle of arrangement, the information-carrying capacity, and the operational characteristics). The section dealing with the general arrangement of a camera discusses such design features as film shift compensation in cameras with continuously moving film, relative "standstill" of the image and film, etc. The information-carrying capacity is considered in time and space, and the capacity is derived. Lens power (relative aperture), synchronization of the exposure with the beginning of the process studied, and the positioning of objectives in multiple-lens cameras are considered the main operation characteristics. The data according to the above classification are tabulated for twelve Soviet-made cameras (see table).

Card 1/2

L 42052-66

ACC NR: AT6001381

Camera designation	Design	Information-carrying capacity						Operational		
		Exposure frequency	Spacing	Time-resolution	Relative entropy	Ratio of exposure to frame shift	Optical capacity	Equivalent relative aperture	Transmission	Synchronization method
2 ³ SYS-1	Optical shift-compensation	4000	0.2	4000	1/4.5	—	4000	—	—	To camera
2 ⁴ SSKS-1		2×10^5	1.8	1.1×10^5	1/17	1/3	2500	1/18	0.5	Preset
2 ⁷ FP-22	Optical commutation	10^5	1.7	6×10^4	1/20	1	7500	1/12	0.5	To camera
2 ⁸ FP-38		5×10^5	2	2.5×10^5	1/20	1	416	1/11	0.25	From camera
2 ⁸ SFR		2.5×10^5	2	1.25×10^5	1/18	1	240	1/18	0.5	" "
2 ⁸ LV-1		33×10^5	2	16.5×10^5	1/18	1	150	1/40	0.3	" "
2 ⁸ SSAS-4		10^5	1.2	8.3×10^4	1	1	270	1/13	0.4	Preset
2 ⁸ VSKS-5	Photo-recorder	6×10^5	1.5	4×10^5	1/9	1	500	1/50	0.5	From camera
2 ⁸ SFR		—	—	1.2×10^5	1/450	1	7500	1/12	0.5	" "
2 ⁸ RKS-1	Scan	—	—	10^5	1/13	1	85	1/18	0.5	" "
2 ⁸ RKS-2		—	—	5×10^5	1/13	1	200	1/18	0.4	" "
2 ⁸ RKS-11		—	—	10^5	1/9	1	300	1/5	0.5	Preset

Orig. art. has: 1 table.

SUB CODE: 14/ SUBM DATE: none

Card 2/2

L 11082-66 EST(1)/FSS-2/T IJP(c) JGS

ACC NR: AT6001385 SOURCE CODE: UR/3180/64/009/000/0027/0028

AUTHOR: Provornov, S. M. (Professor); Grebennikov, O. F. (Candidate of technical sciences; Docent); Gusev, V. P.

ORG: none

TITLE: Scanning camera capable of 500 million frames per second

SOURCE: Akademiya nauk SSSR. Komissiya po nauchnoy fotografii i kinomatografii. Uspekhi nauchnoy fotografii, v. 9, 1964, 27-28

TOPIC TAGS: high speed camera, motion picture camera, plasma research/RKS-1 motion picture camera, RKS-2 motion picture camera, 16S-2 motion picture camera

ABSTRACT: A group of designers associated with the Leningrad Institute of Motion Picture Engineers has perfected their RKS-1 camera. Originally developed in 1958

with a capacity of 100 million frames per second, the camera's exposure frequency has now been increased to 500 million frames per second for use in the investigation of certain plasma, light amplification, chemical, and nuclear processes. The general arrangement of the new camera, the RKS-2, is shown in a diagram. The camera is provided with three exchange lenses with focal lengths of 35, 50 and 85 mm. The camera is suitable for both macro- as well as microphotographs. The scanning is effected by either of two point rasters (0.4 and 0.7 mm spacing, giving a capacity of 90 and 250 frames, respectively). The two mirrors rotate at 30,000 rpm. Twenty-four exposure frequencies can be selected with 10 sup 7 frames per second. The mirror rotating system develops and transmits a synchronizing signal to the object at a pre-set speed. The decoding of the images can be accomplished in the camera.

The 16S-2 motion picture camera can be used for transfer of the images to 16 mm film. Orig. art. has 1 figure.

Card 1/1 SUB CODE: 14, 20/ SUBM DATE: none/ ORIG REF: 002

59
B+1

PROVORNOV, S.M., prof.; GREBENNIKOV, O.F., kand. tekhn. nauk, dotsent

Basic characteristics of high-speed motion-picture cameras.
Usp.nauch.fot. 9:5-11 '64.

(MIRA 18:11)

PROVORNOV, S.M.; GRZBENNIEV, O.F.; GUSEV, V.P.; PERTSEV, S.M.

Photomicrographic attachment for the high-speed SKS-1 motion-picture camera. Trudy LIKI no.11:29-33 '64.

(MIRA 18:10)

1. Kafedra kinofotoapparatury Leningradskogo instituta kinoinzhenerov.

GOLDOVSKIY, Yevsey Mikhaylovich, prof.; PROVORNOV, S.M., prof.,
retsenzent; BLYUMBERG, I.B., retsenzent; MELIK-STEPANYAN,
A.M., retsenzent; TSIRULINA, Z.V., dots., retsenzent;
TSIVKIN, M.V., retsenzent; EYSYMONT, L.O., red.

[Fundamentals of motion-picture techniques] Osnovy kino-
tekhniki. Moskva, Iskusstvo, 1965. 634 p.

(MIRA 18:7)

SHYREV, Viktor Ivanovich. Prinimal'nye: PROVERNOV, S.M.,
prof. EYSYMENT, L.O., red.

[Motion-picture film and motion-picture projection equip-
ment] Kinofil'm i kinoproektsionnaia apparatura. Izd. 4.,
perer. i dop. Moskva, Izd-vo "Iskusstvo," 1964. 535 p.
(MIRA 17:8)

ANDEREG, Georgiy Ferdinandovich; PROVORNOV, S.M.. prof.. red.;
EYSMONT, L.O., red., SAVCHENKO, V.V., red.; GORINA,
V.A., tekhn. red.

[Control of motion-picture projection and sound-
reproducing apparatus] Regulirovka kinoproektsionnoi i
zvukovosproizvodiashchei apparatury. Pod red. S.M.
Provornova. Moskva, "Iskusstvo," 1963. 207 p.
(MIRA 17:2)

GREBENNIKOV, O.F.; PROVORNOV, S.M.

Graphic analysis method for calculating the illumination
distribution on the image of a narrow band of finite width.
Trudy LIKI no.8:37-42 '62. (MIRA 16:6)

1. Kafedra kinofotoapparatury Leningradskogo instituta kino-
inzhenerov.

(Photographic optics)

ANDEREG, Georgiy Ferdinandovich; PROVORNOV, S.M., prof., red.;
EYSIMONT, L.O., red.; GORINA, V.A., tekhn. red.

[Regulation of motion-picture projecting and sound-
reproducing apparatus] Regulirovka kinoproektsionnoi i
zvukovosproizvodiashchei apparatury. Moskva, Izd-vo
"Iskusstvo," 1963. 207 p. (MIRA 16:10)
(Motion-picture projection)
(Sound-recording and reproducing)

PROVORNOV, S.M.; GREBENNIKOV, O.F.; GUSEV, V.P.

Electromechanical shutter for high-speed motion-picture cameras
and its experimental testing. Trudy LIKI no.8:43-46 '62.
(MIRA 16:6)

1. Kafedra kinofotoapparatury Leningradskogo instituta kino-
inzhenerov.

(Shutters, Photographic--Testing)

PROVORNOV, S.M.; GREBENNIKOV, O.F.; GUSEV, V.P.

Using the SKS-1 camera as a photographic recorder. Zhur.nauch.
i prikl.fot. i kin. 6 no. ~~5:386-388~~ S-O '61. (MIRA 14:9)

1. Leningradskiy institut kinoinzhenerov.
(Photography--Apparatus and supplies)

FROVORNOV, Sergey Mikhaylovich; GOLOD, Iosif Semenovich; BERSHTEYN, Naum Davydovich. Priniral uchastiye KARIPIDI, S.D., kand. tekhn. nauk, starshiy nauchnyy sotr.; EYSIMONT, L., red.; PEREGUDOVA, M., tekhn. red.

[Equipment for motion-picture film printing] Kino-kopiroval'-naia apparatura. Moskva, Iskusstvo, 1962. 314 p.

(MIRA 15:10)

(Motion-picture photography---Equipment and supplies)

PROVORNOV, S.M.

Slippage of films during contact printing on a sprocket.

Trudy LIKI no. 5:110-115 '59.

(MIRA 13:12)

1. Kafedra kinoapparatury Leningradskogo instituta kinoinzhenerov.
(Motion picture photography--Equipment and supplies)

SHMYREV, V.I.; ~~PROVORNOY, S.M.~~, kand.tekhn.nauk, red.; EYSYMONT, L.O.,
red.; ~~MALEK, Z.N.~~, tekhn.red.

[Motion-picture film and its projection] Kinofil'm i kinopro-
ektsionnaya apparatura. Pod obshchei red. S.M.Provornova.
Izd.3., perer. i dop. Moskva, Gos.izd-vo "Iskusstvo," 1961.
402 p. (MIRA 14:4)

(Motion-picture projection)

PROVORNY, G. K.

А.П.Протас	Влияние отдельных элементов на свойства стали в процессе кристаллизации.
О.Д.Модальский	
Л.М.Белая	
Ю.С.Голунов	
М.А.Денисов	Влияние условий роста на структуру мелкокристаллов железа.
В.П.Андреев	
Э.Н.Тетов	
С.Я.Слобод	Закалка и прочность
Е.А.Козлов	влияние структуры на свойства
В.А.Мозолев	железа.
Е.А.Козлов	Температурные условия заготовки
С.Я.Слобод	или железа.
Ю.П.Соловьев	Борьба с дефектами
Б.А.Лавренко	на поверхности
Б.Б.Гуляев	
А.К.Павлов	Непрерывная деформация стали в процессе
В.П.Левин	заготовки
В.М.Левин	300-350 мм.
Б.Б.Гуляев	
Н.Н.Гуляев	Исследования процесса деформации
А.А.Маслов	или железа
А.А.Маслов	300-350 мм.
Б.Б.Гуляев	

report submitted for the 5th Physical Chemical
Conference on Steel Production, Moscow-- 30 Jun 1959.

GOLOD, I.S.; PROVORNOZ, S.M., otvetstvennyy redaktor; YAKOBSON, A.Kh.,
redaktor; MALEY, Z.N., tekhnicheskiy redaktor

[Film developing machinery] Proizvochnye mashiny. Moskva, Gos.
izd-vo "Iskusstvo," 1956. 362 p. (MLRA 10:3)
(Photography--Developing and developers)

PROVOROV, A.

Economic construction on the "Mossovet" State Farm. Sel.'stroil.
14 no.10:7-9 0 '59. (MIRA 13:2)

1. Glavnyy inzhener-stroitel' sovkhosa imeni Mossoveta
Lyuberetskogo rayona, Moskovskoy oblasti.
(Moscow Province--Farm buildings)

KHESIN, R.B.; GORLENKO, Zh.M.; SHEMYAKIN, M.F.; BASS, I.A.; PROZOROV, A.A.

Relation between protein synthesis and the regulation of the
formation of messenger DNA in the cells of Eschrichia coli B
during the development of T2-phage. Biokhimiia 28 no.6:1070-1086
N-D'63 (MIRA 17:1)

1. Institute of Atomic Energy, Moscow.

GUGLIN, N.N.; PROVORNYI, A.K.; ZASETSKIY, G.F.; GULYAYEV, B.B.

Manufacture of shaped steel ingots by continuous casting.

Stal' 21 no.10:895-899 0 '61.

(MIRA 14:10)

(Continuous casting)

(Steel ingots)

PROVOROV, A. V. and CHEVCHAEV, E. E.

Proizvodstvo porshnevnykh kolats; individual'naya otlivka iz vagramki.
Sverdlovsk, Masgiz, 1947. 62 p. diagrs.

Bibliography: p. [63].

Production of piston rings; individual founding in cupola furnaces.

DLC: TJ533.C5

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

PRCVCOROV, A. V. and N. E. CHERNOBAEV

Tochnoe lit'e. Moskva, Mashgiz, (1950?) 88 p.

Precision casting.

SC: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

179
2

***Degassing of Aluminum (Alloy).** A. V. Provorov (*Aerospac. (U.S.S.R.)*, 1940, (2), 35-38; *C. Abstr.*, 1941, **35**, 2457).—[In Russian.] An aluminum alloy containing copper 1-1.5, silicon 4.5-5.5, magnesium 0.4-0.6, and iron 0.05% was degassed with nitrogen and chlorine. The chlorine proved the more effective. Prolonged treatment with chlorine leads to grain growth. The duration of treatment with chlorine was 5-7 minutes for 150-250 kg. of metal at 600-670° C. In using nitrogen the temperature was 650-690° C. and duration was 10-12 minutes.

17943

1ST AND 2ND GROUPS																										3RD AND 4TH GROUPS																									
1ST AND 2ND GROUPS																										3RD AND 4TH GROUPS																									
CASTING OF ALLOY 6852 A. V. DAVYDOV, <i>Trudy</i> 1930, No. 10, 20-4. The alloy 6852 contains 9.7-11.5% Al, 4.0-6.0% Fe, 1.6% Ni, 0.1% Mg and the rest Cu. The alloy was cast by pouring into sand molds and by centrifuging. The latter method gave a greater compactness and less gas inclusions and porosity than the former method. The castings from both methods had small-grained structures. The recommended heat-treatment: quenching in water at 900-915°, holding for 15 min., and tempering at 650-700° for 1.5-2 hrs. B. Z. KAMICH																																																			
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15

Casting of Alloy 6852. A. V. Provory (Aviapromish. (Aeroplane Ind.), 1939, (10), 20-24; C. 46a., 1940, 84, 1603).—[In Russian.] The alloy 6852 contains aluminium 9-5-11-5, iron 4-0-6-0, nickel 4-0-6-0, magnesium 0-1%, and the rest copper. The alloy was sand cast and also centrifugally cast; the latter method giving a greater compactness and less gas inclusions and porosity than the former. The castings from both methods had small-grained structures. The recommended heat-treatment is: quenching in water at 900-915° C., holding for 15 minutes, and tempering at 650-700° C. for 1-2 hrs.

ASACSLA METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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1ST AND 2ND ORDERS

PRECEDENCE AND PROPERTIES INDEX

2ND AND 3RD ORDERS

15

Furnaces for Melting Magnesium Alloys. A. V. Provorov (*Litynsk Delo*, 1940, (11/12), 25-27).—[In Russian.] A short review.—N. A.

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

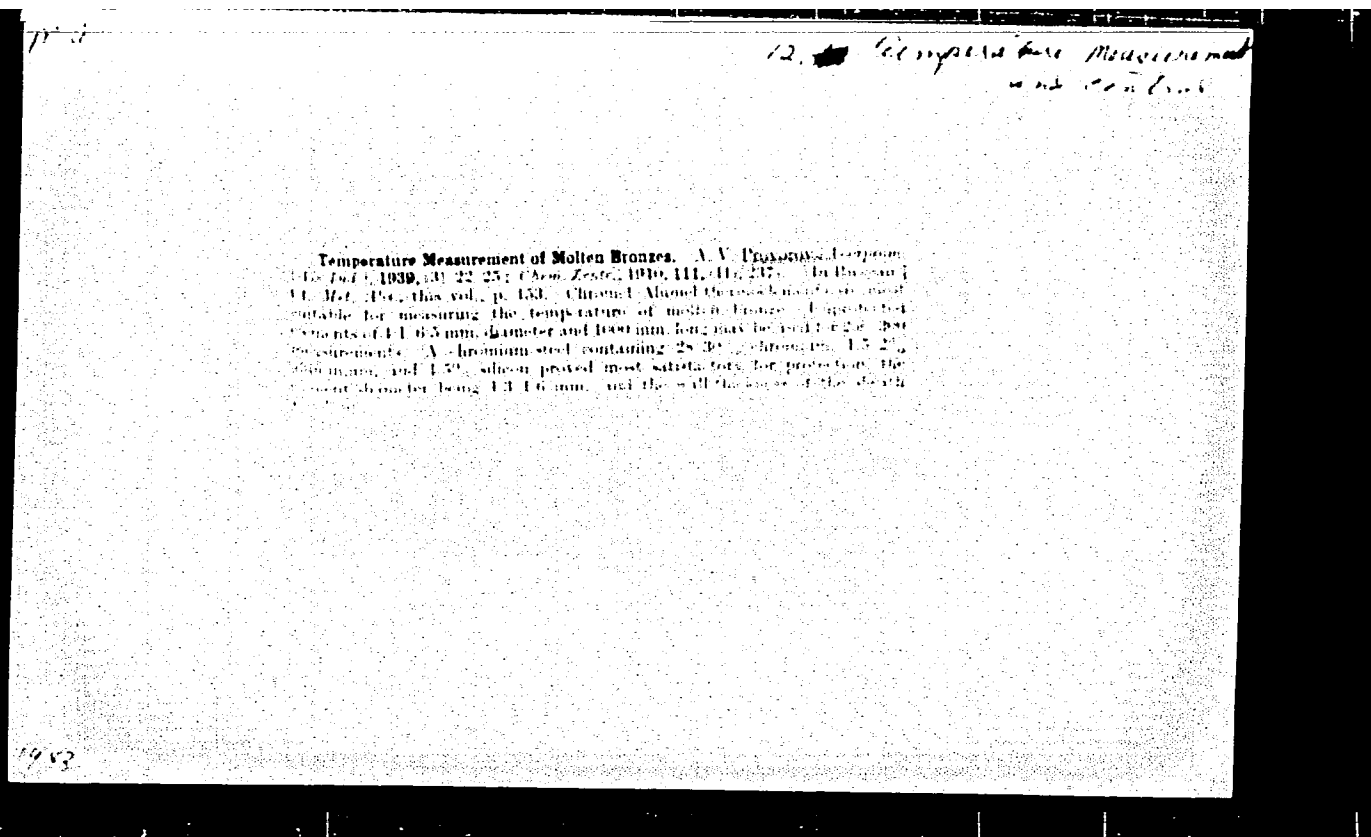
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1ST AND 2ND ORDERS

PRECEDENCE AND PROPERTIES INDEX

2ND AND 3RD ORDERS

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
CA 9 Measurement of the temperature of molten bronze A. V. Provorov. <i>Armiromyshlennost</i> 1939, No. 3, 22-5; <i>Chem. Zentr.</i> 1940, II, 237; cf. C. I. 35, 7315P H. F. With																																																			
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ACC NR: AP6034117

SOURCE CODE: UR/0358/66/035/005/0612/0615

AUTHOR: Lebedev, G. I.; Provorov, I. A.; Zubkovich, B. A.

ORG: none

TITLE: Data from a study of rodents and their ectoparasites in Kamchatka

SOURCE: Meditsinskaya parazitologiya i parazitarnyye bolezni, v. 35, no. 5, 1966, 612-615

TOPIC TAGS: epidemiology, epizootic, rodent, disease vector, parasitology, parasite, ectoparasite

ABSTRACT: Parasites found on rodents in Kamchatka were studied to determine their relative species composition and prevalence. They are most common in the summer months. Table 1 shows the species and their hosts. Orig. art. has: 2 figures and 2 tables. [W.A. 50]

Card 1/2

UDC: 599.32-167+576.89] (571.66)

ACC NR: AP6034117

Table 1. Percentage composition of various gamasoid tick species on various hosts

Host	Total number of ticks caught	Tick species																
		Laelaps sp.	Hippasch aculeifer	Hypomma sp.	Androcarlops pavlovskii	Haemaphysalis glaziosi	Eutrichia ha-batit	Haemaphysalis pontiger	Haemaphysalis miki	Haemaphysalis ambigua	Oritomyia batiff	Haemaphysalis (aculeifer)	Haemaphysalis emicli	Haemaphysalis sp.	Parasitoida gen. sp.	Pachyphorus nitrophori	Macrochirus matrius	Pachyphorus fides
Norway rat	458	—	0.45	—	2.17	80.3	0.43	0.63	—	0.43	1.53	—	—	0.43	8.7	0.43	4.35	—
Black rat	130	—	—	—	—	23.0	—	—	—	—	69.2	—	—	—	—	—	—	—
Red vole	186	4.5	—	3.2	—	16.0	6.4	—	6.4	9.6	—	27.7	—	3.2	3.2	—	3.2	3.2
Shrew	44	4.5	—	—	—	—	22.7	—	—	—	—	45.6	27.2	—	—	—	—	—

SUB CODE: 06/ SUBM DATE: 11Mar65

Card 2/2

Name : PROVOROV, K.

Title : Professor.

Remarks : K. PROVOROV is the author of an article entitled "Tracking Artificial Satellites in Novosibirsk".

Source : Mo Stantsii v Kosmose (Stations in Outer Space), a collection of articles, published by the USSR Academy of Sciences, Moskva, 1960, with foreword by Academicians A. N. Nesmeyanov and A. V. Topchiyev.

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PHASE I BOOK EXPLOITATION

SOV/5946

Mukhaev, A. A., ed.

Stantsii v kosmose: sbornik statei (Space Stations: Collection of Articles) Moscow, Izdatel'stvo AN SSSR, 1958. 444 p. 25,000 copies printed. (Series: Akademiya nauk SSSR. Nauchno-populyarnaya Seriya)

Resp. Ed.: A. A. Mukhaev; Compiler: V. V. Fedorov; Ed. of Publishing House: Ye. M. Klyuev; Tech. Ed.: I. D. Novikova.

PURPOSE: This book is intended both for the space specialist and the average reader interested in space problems.

CONTENT: The book contains 73 short articles by various Soviet authors on problems connected with space stations and the launching of artificial earth satellites and space rockets. Some possibilities of future development of space stations are also discussed. The articles were published in the period of 1957-1960. No person-articles are mentioned. There are no references.

Foreword

Makharov, A. M., Academician. A Dream of Humanity Is Realized [October 3, 1958]

Toshchik, A. V., Academician. Great Victory of Soviet Science [October 16, 1957]

I. ARTIFICIAL EARTH SATELLITES - TRIUMPH OF THE SOVIET SCIENCE AND ENGINEERING

Fedorov, V. V., Professor. Observation of Artificial Earth Satellites in Novosibirsk [July 26, 1957]

Kulagin, S. O. Artificial Earth Satellites [August 17, 1957]

TASS Information [October 8, 1957]

Dobronravov, V. V., Doctor of Physical and Mathematical Sciences. On the Way to Mastering Interplanetary Space [October 9, 1957]

Stanukovich, K. P., Professor. The Road to the Stars [October 21, 1958]

TASS Information [November 2, 1957]

How the Second Sputnik Was Arranged [Izvestiya, November 12, 1957]

Kandaryan, M. A., Candidate of Physical and Mathematical Sciences. The Road to Future Interplanetary Flights [November 12, 1957]

Fedorov, V. V., Professor. The Second Sputnik [November 12, 1957]

AUTHOR: Provorov, K., Professor, Doctor of
Technical Sciences, Chairman of the
Organizational Committee

S/154/60/000/01/002/017
B007/B123

TITLE: Resolution Passed at the Conference of Schools of Higher Learning
on Problems Involved in Building-up Control Networks

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka,
1960, Nr 1, pp 5-7 (USSR)

TEXT: The wording of the resolution passed at the Conference held in Novosibirsk from October 26 to 30, 1959 is published here. In the introduction to the resolution it is stated that the number of members of the astronomical-geodetic control network reached 500, and that two thirds of the USSR area are covered by it. With Professor F. N. Krasovskiy as the head, reliable data on the dimensions of the earth were obtained. 10 points are treated in the resolution, the most important task being the development of highly accurate continuous geodetic controls within the polygons of the astronomical-geodetic network. In all cases the state geodetic network should ensure such a density that at least one point will be found within 50 km². Only in areas that are difficult to access it should be permitted to build up a network with longer triangular sides. The

Card 1/2

Resolution Passed at the Conference of Schools of
Higher Learning on Problems Involved in Building-up
Control Networks

S/154/60/000/01/002/017
B007/B123

Conference recommends a systematic repetition of observations at the points of the state geodetic network for the purpose of studying the motion of the earth crust. The Ministerstvo vysshego i srednego spetsial'nogo obrazovaniy SSSR (Ministry for Higher and Secondary Special Education of the USSR), the Gosplan SSSR (State Planning Committee of the Council of Ministers of the USSR), and the Gosudarstvennyy komitet po delam elektroniki pri SM SSSR (State Committee for Affairs of Electronics at the Council of Ministers USSR) are asked to start the series production of optical and radio range finders. New instruments for geodetic surveying and for the mathematical evaluation of the results obtained should be developed. Training of students in mathematics and physics should be improved, and their practical experience should be enlarged in the production. The Conference recommends that the problem of organizing a filial TsNIIGA i K (Branch of the Central Scientific Research Institute of Geodesy, Aerial Surveying, and Cartography) in Novosibirsk and of a geodezicheskaya laboratoriya (Laboratory of Geodesy) at the Novosibirskoye otdeleniye Akademii nauk SSSR (Novosibirsk Department of the Academy of Sciences of the USSR) be studied. In this connection also the GUGK MVD SSSR (GUGK MVD USSR) is mentioned.

Card 2/2

AUTHOR: Provorov, K. L., Professor, Doctor of
Technical Sciences

S/154/60/000/01/006/017
B007/B123

TITLE: Comparison of the Accuracy of [✓]Triangulation as Compared to That
in Trilateration or Trilateration and Triangulation Combined

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka,
1960, Nr 1, pp 57-64 (USSR)

TEXT: Besides building up geodetic nets by triangulation consisting of triangles with measured angles, they can also be established by means of trilateration where only the sides are measured, or by means of trilateration and triangulation combined where the angles and sides of the triangles are measured. Here, a comparison is drawn between the accuracies achieved by these methods. Triangulation guarantees a high precision of the elements of the diagonal. The disadvantage of this method lies in a great reduction of accuracy of the linear elements with a decrease of the combining angles. In the member of trilateration, the length of the diagonal can be determined precisely with the present accuracy of surveying achieved by means of optical range finders. But the accuracy of its direction is greatly reduced by a decrease of the combining angles. The disadvantage of this method lies in the insufficient checking of surveys as only one condition equation is available. The great disadvantage of triangulation and

Card 1/2

Comparison of the Accuracy of Triangulation as
Compared to That in Trilateration or Trilateration
and Triangulation Combined

S/154/60/000/01/006/017
B007/B123

trilateration is the great interdependence of vertical and horizontal shifts (for one and the same measured elements). By triangulation and trilateration combined, the length as well as the direction of the diagonal is determined best, and the degree of accuracy does not depend on the triangular form. The latter alleviates the reconnaissance of the points and leads to reduced heights of signals. Besides, this method makes a stricter checking of linear and angular measurements possible. The shortcoming of this method is the great volume of field surveying (of angles and sides). The greatest accuracy is achieved by triangulation and trilateration combined. However, the great volume of field work will not always permit application of this method. F. N. Krasovskiy is mentioned in this article. There are 3 figures and 4 tables.

ASSOCIATION: Novosibirskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (Novosibirsk Institute of Geodetic, Aerial Survey, and Cartographic Engineers)

Card 2/2

PROVOROV, K.L., inzhener.

Relation of errors in a traverse survey to its form. Sbor. st. po geod.
no. 4:13-20 '53. (MLRA 9:6)

(Traverses (Surveying))

TRUYEROV, K. I.

Dissertation: --"On Constructing a Continuous Triangulation Network."
Cand Tech Sci, Moscow Inst of Geodesy, Aerial Photography, and Cartography, 11
Jun 54. (Vechernyaya Moskva, Moscow, 2 Jun 54)

SO: Sum 318, 23 Dec. 1954

PROVOROV, K. L.

"Errors in Determination of Length of Sides and Azimuth (Directional angles)
in a Continuous Triangulation Network".

Sb. statey po geodezii, No. 8, pp 77-92, 1954.

The problem of determining the mean square errors in length and in direction angles of any side of a triangulation network with specified azimuths at their ends is solved for the case of equilateral triangles with angles adjusted to the least sum of square errors. The use of equilateral triangles increases appreciably the accuracy of computation. (RZhAstr, No. 1, 1956)

SO: Sum No 884, 9 Apr 1956

PROVOROV, K.L.

Accuracy in determining the triangulation point. Sbor. st. po geod. no.9:
3-12 '55. (Triangulation) (MIRA 9:6)

PROVOROV, K.L.

Results of angle measurements in triangulation. Sbor.st.po geod.
no.9:91-104 '55. (MIRA 9:6)
(Triangulation)

PROVOROV, K.L.; VASIL'YEVA, V.I., redaktor izdatel'stva; KUZ'MIN, G.M.,
tekhnicheskii redaktor

[Accuracy in continuous triangulation systems] O tochnosti sploshnykh
setei triangulyatsii. Moskva, Izd-vo geodezicheskoi lit-ry, 1956.
163 p. (MLBA 9:12)
(Triangulation)

SHKOLNIKOV, P. I., ... V. A.,

"Angular Measurement on Base Net Points," Izvestiya Vysshikh Uchebnykh Zavedeniy, Geodeziya I Kartografiya, No 1, Moskva, 1956.

PROVOROV, N.N.

Andrushevka Distillery and the seven-year plan. Spirt.prom. 29
no.4:5-6 '63. (MIRA 16:5)

1. Direktor Andrushevskogo spirtovogo zavoda.
(Andrushevka--Distilling industries)

PROVOROV, N.N.

Material incentive for leading distillery workers. Form 1 spirit.
prom. 31 no. 4:24-25 '65. (MIRA 18:5)

1. Andrushevskiy spirtovod.

PROKOROV, A.N.

Appoint permanent molasses suppliers for the distilleries
processing best-sugar molasses. Part. 1 spirit. prom. 30 no.7:
25-26 '64 (MIRA 18:2)

1. Andrushevskiy spiritovoy zavod.

ZAYTSEVA, V.D.; PROKOROV, V.H.

Use of the luminescence method in controlling certain processes
of manufacturing latex products. Zhur. prikl. spekt. 3 no. 2:
174-176 Ag '65. (MIRA 18:12)

1. Submitted Nov. 2, 1964.

S/081/60/000/015/014/014
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 15, p. 589, # 63751

AUTHORS: Dobrovol'skaya, N.N., Provorov, V.N., Kheraskova, Ye.P.

TITLE: The Qualitative Determination of the Rubber Type by the Drop Method

PERIODICAL: V sb.: Metody analiza syr'ya i materialov, primenyayemykh v rezin. prom-sti, Moscow, 1959, pp. 49-53

TEXT: The Weber test was used (bromination of rubber in CCl_4 solution with subsequent processing by phenol); Na-butadiene rubber produces blue-violet color; butadiene-styrene rubber - yellowish; butyl rubber pale violet; and "nairit" - green color. Fusion of rubbers with Na after dissolution in water makes it possible to identify Cl-containing polymers by the AgCl precipitate after addition of $AgNO_3$; S-containing rubbers by the violet color after addition of Na nitro-prusside solution; N-containing rubbers by the blue color after addition of $FeSO_4$ and $FeCl_3$ and heating in the presence of HCl. To detect butadiene-styrene rubbers, the sample is oxidized with HNO_3 reduced to amino-benzoic acid and denitrated in combination with β -naphthol; the fire-red color indicates the presence of styrene. By the first variant of pyrolytic decomposi-

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S/081/60/000/015/014/014
A006/A001

The Qualitative Determination of the Rubber Type by the Drop Method

tion the products are collected into a citrate buffer solution with thymol blue (pH 1.2-2.8) or bromothymol blue (pH 6-7.6) indicators. The rubbers are determined using a table of color changes. By the second variant of pyrolytic decomposition the products are absorbed by a n-dimethylaminobenzene solution. Practically both variants are used. The described methods are recommended to be introduced into industrial laboratory practice. ✓

G. Shcherbachev

Translator's note: This is the full translation of the original Russian abstract.

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Y. M. G. G. G. G. V.N.

Method for color determination of various materials in
the rubber industry. Kauch. i rez. 24 no. 1:53 Ja '63.

(MIRA 18:3)

1. Nauchno-issledovatel'skiy institut rezinovykh i lakokanykh
zdeliy.

SOV/138-59-2-14/24

AUTHORS: Gokhshteyn, A. Ya. and Provorov, V. N.

TITLE: A Method of Measuring the Thickness of Latex Envelopes
(Metod izmereniya tolshchiny lateksnykh obolochek)

PERIODICAL: Kauchuk i rezina, 1959, Nr 2, pp 47-48 (USSR)

ABSTRACT: A device is described and illustrated for measuring latex films in the range 0.003 to 0.2 mm thickness, with an accuracy of 0.0005 mm in the lower range. The latex film is held between a Permalloy disc and core which is surrounded by two coils. The lower coil is fed with a sinusoidal current at 50 c.p.s., with 0.2 ma. amplitude. The amplitude of the current induced in the upper coil is measured and is inversely proportional to the resistance in the magnetic circuit. The thickness of the film δ can be calculated from the relationship:

$$R = \frac{L}{\mu S} + \frac{\delta}{\mu_0 S_0}$$

where L , S and S_0 are constants. The magnetic permeability of the film μ_c is close to that of air and can be considered constant. The current amplitude

Card 1/3 in the upper coil is measured by an oscilloscope.

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A Method of Measuring the Thickness of Latex Envelopes

The signal in the lower coil can be produced by a ferro-resonant stabilized generator, or, for measurement of very thin films, by the control signal of the type EO-7 oscilloscope itself. The electrical circuit is shown in Fig 2. There are an equal number (800) of turns in each coil. Fig 3 shows the relation between the spread of the ray α and the film thickness δ (in microns). The 20 mm diameter disc can be inserted into balloons and moved to any desired measuring position. A tabulation shows results of tests on a balloon initially 30 cm dia. at various stages of inflation where the extension of the material is increased to 450%. Wall thickness is measured at 10 points. The scatter between points persists as the balloon is inflated and becomes considerable at maximum dilation, and it is found that the local wall thickness is frequently considerably less than the average thickness predicted by calculation. For a balloon with an initial nominal wall thickness of 160 microns, the minimum local wall thickness was found to be 3.5 microns against an average calculated wall

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SOV/138-59-2-14/24

A Method of Measuring the Thickness of Latex Envelopes

thickness of 6.8 at 450% extension.

There are 4 figures and 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovykh i
lateksnykh izdeliy (Scientific-Research Institute for Rubber
and Latex Products)

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S/031/60/000/021/017/018
A005/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 21, p. 507, # 36919

AUTHORS: Provorov, V. N., Okhapkina, N. A.

TITLE: An Investigation of the Gaseous Substances Liberated During the
Vulcanization of Rubber Mixtures Without Pressure

PERIODICAL: Tr. N.-1. in-ta resin. i lateksn. izdeliy, 1959, sb. 2, pp. 155-158

TEXT: At the vulcanization of rubber mixtures without pressure, the formation of pores in the rubber is observed, which may be caused by the liberation of water vapors and gaseous substances during the vulcanization process. The mixtures of **СКБ** (SKB) were investigated with and without the content of CaO. The vulcanization was conducted during 1 hour at 143-145°C. The liberation of an insignificant amount of gaseous substances (H₂S was not stated) and a considerable amount of moisture were observed. The latter was equivalent to the moisture content of the ingredients introduced into the rubber mixture. Vulcanized rubber, which did not contain CaO, showed clearly visible pores, but vulcanized rubber containing CaO did not show any visible pores. V. Zlotina

Translator's note: This is the full translation of the original Russian abstract.

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PHASE I BOOK EXPLOITATION

Совещатель по юридическим, БМ, 1959

504/1697

Polystyrene-divinylbenzene emulsion; materials synthesized by the Methods for Emulsion Analysis; Materials of the 8th Conference) Kluks, I. et al. AN BSR, 1990. 147 p. 1,000 copies printed.

Sponsoring Agency: Akademiyu nauk Belorusskoy SSR. Institut fiziki

General Ed.: M. A. Bortsevich; Ed.: L. Tludfeyev; Tech. Ed.:
N. Siderko.

PHOTOS: This collection of articles is intended for chemists and physicists interested in molecular luminescence, and for scientists from other fields concerned with applications of this and related phenomena in research in the life sciences.

compiled: the collection contains 26 papers read at the 1979 Conference on Luminescence, which took place in 19-24 October, 1979 (papers of conference not given). These studies are concerned principally with the development of new luminescence methods for quantitative and qualitative chemical analysis, and with the applications of luminescence in medical and biological research. They discuss luminescence methods for the determination of uric acid, uricase, ascorbic acid, albumin, boron, and other elements, as well as luminescence methods for the diagnosis of skin cancer and the detection of slips of paper, pigments, electrocatalysis, etc. The structural basis of new instruments for luminescence analysis is described. The conference was not concerned with studies on the phosphorescence of crystal phosphors. There is a discussion of the contributions of several specialists in molecular luminescence in the course of the year and half preceding the conference. The articles of V. K. Mal'tsev (p. 75) and of V. V. Krut'kov (p. 79) have been annotated because of their importance. No preambles are mentioned. References accompany most of the articles.

Tudley, M. M. Luminescence Method and Device for the Analysis of Water-Oil Emulsions

9

Polyshev, A. N., L. Ye. Gochuk, A. D. Chuganov, and M. I. Rybchelskiy (Tall Rysersko zavoda "Krasnyy Bechnichik," Kiyevskiy universitet (Tall of the Kiyevskiy "Krasny Bechnichik," Kiyev University)).
Landscape Analysis of Rubbers

6

Benzon, M. L. (Essentially machine-insoluble very inert label for pyrazinones) (Benzon Scientific Research Institute of the Cable Industry). Investigation by the Luminance Method of the Diffusion of Liquids in Rubbers.

2

[illegible]

10

Apostol, V. B. (Khabarovsk State University)
Meditsinsky Institut (Khabarovsk State Medical Institute)
Luminescence Microscopic Analysis of Skin Cancer

101

Kozlovskii, A. P., and E. M. Icherikova-Alimsk. Study by the Incubance Microscopy Method of the Morphology of Certain Biotrophic and Apotrophic Bacteria

III

Rubinshteyn, Yu. I. [Institut pleniya AN SSSR (Institute of Restriction of the Academy of Medical Sciences of the USSR)]
Experimental Use of Luminescence Microscopy in Myology

116